Programme's After Market Services
NHP–4 Series Transceivers

Car Kit (CARK 10P)

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Introduction

This installation guide has been prepared to provide the basic information necessary to install this car kit. This guide is not intended to be definitive, because different types and models of vehicles will require different installation work. The information given is for general guidance only.

The terms of the warranty demand that this car kit be installed by an experienced installation facility. An end user should never attempt to install this car kit without professional assistance as the installation requires special tools and knowledge.

Please refer to the telephone's owner's manual for instructions on the telephone's operation, care and maintenance, including important safety information.

***Note**: Read the warnings below before beginning the installation procedure.*

WARNINGS

1. ENSURE THAT THE VEHICLE'S BATTERY IS DISCONNECTED BEFORE YOU START THE INSTALLATION PROCEDURE, AND THAT IT REMAINS DISCONNECTED DURING THE PROCEDURE.

2. DO NOT SMOKE OR USE OPEN FLAMES WHEN WORKING NEAR THE VEHICLE'S FUEL SYSTEM.

3. ENSURE THAT ELECTRICAL CABLES, HYDRAULIC LINES AND FUEL LINES ARE NOT DAMAGED DURING INSTALLATION.

4. ENSURE THAT NORMAL CONTROL AND OPERATION OF THE VEHICLE IS NOT IMPAIRED BY THE INSTALLATION, PARTICULARLY THE BRAKES AND STEERING.

5. ALTHOUGH ELECTRONIC SPEED CONTROL, ABS ANTI–LOCK BRAKE AND FUEL INJECTION SYSTEMS ARE RELATIVELY IMMUNE TO MALFUNCTION CAUSED BY NEARBY RADIO TRANSMISSIONS, SHOULD YOU EXPERIENCE FALSE OPERATION OF THESE SYSTEMS OR ARE IN ANY DOUBT WHATSOEVER AS TO THEIR FUNCTIONALITY, PLEASE CONSULT THE VEHICLE'S DEALER.

6. THE CAR KIT IS SUITABLE FOR USE ONLY IN VEHICLES WITH A 11 V TO 15 V SUPPLY WITH NEGATIVE GROUNDING. USE ON OTHER SUPPLY VOLTAGES OR ALTERNATIVE POLARITY WILL DAMAGE THE EQUIPMENT.

7. THE PHONE SHOULD NOT BE LEFT SWITCHED ON FOR EXTENDED PERIODS WITHOUT RUNNING THE VEHICLE'S ENGINE. FAILURE TO COMPLY COULD DRAIN THE VEHICLE'S BATTERY.

Unpacking

Carefully unpack the equipment and ensure that the following items are present.

Mobile Holder (*installed)*	MBH–6
Compact Handsfree Unit *(with spiral cable and internal speaker)*	PHF–1P
Microphone *(with flat mounting plate)*	HFM–7B
Mounting Plate *(with hardware)*	MKE–1
Swivel Mounting Plate *(with hardware)*	HHS–1
Cable Holder *(installed)*	CKH–1
Mounting Plate *(mounting MBH–6 to PHF–1P) Installed*	MKE–4N
Blank Plate *(PANEL) (cover for PHF–1P not shown)*	QCP–1
Cigarette Lighter Adapter	LCP–2
Fixed Power Cable	PCH–5

Component Parts

Compact Handsfree Unit (PHF–1P)

The Compact Handsfree Unit (PHF–1P) can be used for handsfree or private conversations. When the transceiver is inserted in the Mobile Holder (MBH–6), the system operates in handsfree mode. When the transceiver is removed from the Mobile Holder (MBH–6), the internal microphone and loudspeaker of the transceiver become active. The Mobile Holder (MBH–6) can be mounted separately or attached to the Compact Handsfree Unit (PHF–1P).

Mounting Plates (MKE–1), (MKE–4N) and Swivel Mounting Plate (HHS–1)

The (MKE–1) is a fixed position Mounting Plate. The (HHS–1) is a Swivel Mounting Plate which allows for adjustable fixing. Both mounting plates are interchangeable. The mounting plate can be used to mount the Compact Handsfree Unit (PHF–1P) to the automobile.

Fixed Power Cable (PCH–5)/Cigarette Lighter Adapter (LCP–2)

The Fixed Power Cable (PCH–5) can be connected to either the ignition switch or to an unswitched (+10.8 to +15.6 VDC) power source. The Fixed Power Cable (PCH–5) wires are red (+12V) and black (GND) and connect to the battery via the supplied fused connectors.

It is necessary to verify which lead of the PCH–5 cable is connected to the centre contact. After determining the required length of cable for the application, crimp the supplied spade type connectors to the ends of the PCH–5 cable. Attach the fuse assembly with the red wire to the lead connected to the centre contact of the PCH–5 cable. This is the positive lead. Attach the fuse assembly with the black wire to the other lead. This is the negative (ground) lead.

The Cigarette Lighter Adapter (LCP–2) connects the Compact Handsfree Unit (PHF–1P) to the vehicle's cigarette lighter. The Cigarette Lighter Adapter plugs into the vehicle's cigarette lighter socket and into the base of the Compact Handsfree Unit (PHF–1P).

The Compact Handsfree Car Kit draws current when the phone is connected and powered on or when charging with the phone on or off. The car kit does not draw current when the phone is not connected. If the car kit is connected to unswitched power, the phone should not be left connected to the car kit over extended periods of time (1 week or greater without running the automobile) because the phone will drain the car's battery. If the car kit is connected to the ignition switch, the unit will not draw current when the key is off. The handsfree function will not operate with the key off either.

CAUTION! THE MAXIMUM SUPPLY VOLTAGE IS +15.6 VOLTS RELATIVE TO GROUND.
CAUTION! OVERVOLTAGE OR WRONG POLARITY MAY CAUSE SERIOUS DAMAGE TO THE CAR KIT!

Handsfree Microphone (HFM–7B)

The Handsfree Microphone can usually be installed on the driver's sun visor or A–pillar. The main idea is to get the microphone as close to the driver's mouth as possible, and to attach the microphone to a surface that is mechanically quiet. The microphone connects to the bottom of the Compact Handsfree Unit (PHF–1P) to the microphone jack. **The microphone should be mounted at least 3 ft away from the Compact Handsfree Unit (PHF–1P) to avoid acoustic feedback.**

Compact Handsfree Car Kit Operation

Once the handportable is placed in the Mobile Holder (MBH–6) in a vehicle, you may set the KEYPAD TONES, RINGING VOLUME, and the LIGHTS of the phone differently from the setting selected for handportable use. The phone will memorize these car settings and use them whenever the phone is placed in the Mobile Holder (MBH–6).

Lights (Menu 4 1)

When the phone is connected to a car kit, desktop charger, or cigarette lighter charger, the lights are on permanently when this setting is ON; when this setting is OFF, the lights come on when you press a key or have an incoming call, and go off 15 seconds later.

Ringing Volume (Menu 4 2)

You hear each ringing level as you scroll through the volume levels. When the phone is connected to a handsfree desktop charger, handsfree car kit or headset, the ringing volume can be set separately for those accessories with this menu.

Keypad Tones (Menu 4 4)

You can select the volume level or turn off the sound the phone makes when you press a key.

Note: *The keypad tone volume is set separately for each accessory you use.*

Installation

Special attention must be given to the positioning of the car kit accessories.

The positioning of the Mobile Holder (MBH–6) is the most important factor when trying to achieve the most comfortable position for the user. The location of the holder should be selected so that the visibility of the phone's display is good under all lighting conditions but not so that the driver's attention is easily distracted. The holder should be located so that the driver can easily reach the keypad. Under no circumstances should the holder prevent the driver from operating or controlling the vehicle in any way or obstruct the driver's view of traffic.

The Fixed Power Cable (PCH–5) can be connected to either the ignition switch or to an unswitched (+10.8 to +15.6 VDC) power source. The Fixed Power Cable (PCH–5) wires are red (+12V) and black (GND) and connect to the battery via the supplied fused connectors.

It is necessary to verify which lead of the PCH–5 cable is connected to the centre contact. After determining the required length of cable for the application, crimp the supplied spade type connectors to the ends of the PCH–5 cable. Attach the fuse assembly with the red wire to the lead connected to the centre contact of the PCH–5 cable. This is the positive lead. Attach the fuse assembly with the black wire to the other lead. this is the negative (ground) lead.

Ensure that the cables are routed as far away as possible from the vehicle's electronic systems (refer to WARNINGS). Also ensure that the cables are not subjected to undue mechanical stress eg under seats or against sharp edges.

All installations should take into account any special requirements of the customer. However, should the customer require an installation that is illegal or unsafe these facts must be pointed out to the customer and a policy of non–compliance adopted.

Testing

Once installed, the equipment should be tested to ensure that it is operating satisfactorily and that the position of the units does not impair the dirver's ability to control and operate the vehicle in any way.

Use the phone to make a call when the vehicle is parked with the engine running. during the call, switch off the engine. Ensure that the phone is operational with the engine running and with the engine switched off. For operating information refer to the "Owner's Manual" supplied with the phone.